

L.S.F.

CHM 201

exam1

SOLUTION

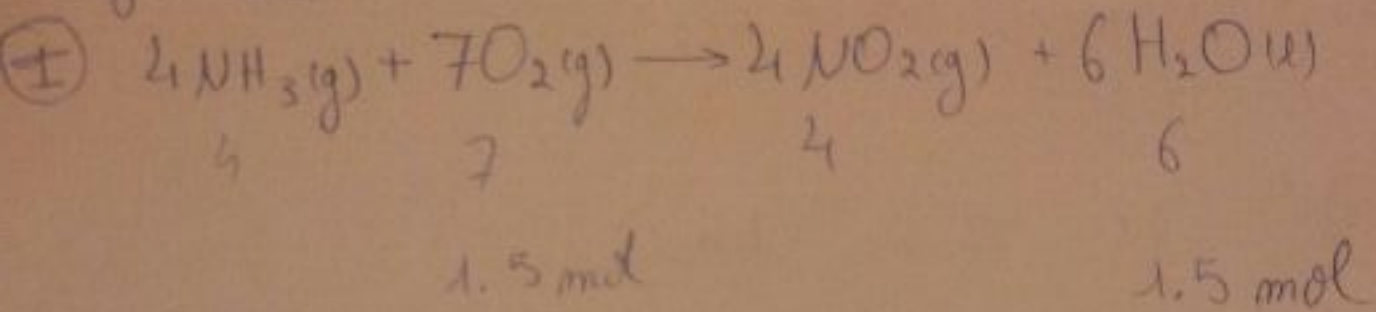
ALWAYS READY TO

HELP!

1. B
2. C
3. A
4. A
5. ca
6. E
7. b
8. D
9. C
10. C
11. D
12. C
13. e
14. A
15. A
16. A
17. D
18. D
19. ed
20. D
21. B
22. A
23. A
24. B
25. E
26. E
27. A
28. A
29. D
30. C



Subjective:

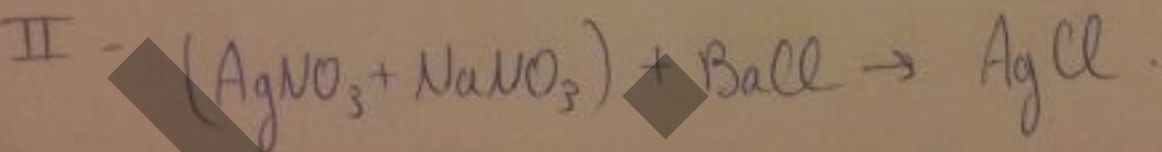


$$m_{\text{H}_2\text{O}} = \frac{27}{18} = 1.5 \text{ mol} = m_{\text{O}_2 \text{ reacted}} = m_{\text{NH}_3 \text{ reacted}}$$

$$m_{\text{NH}_3 \text{ left}} = \frac{8.52}{17} = 0.5 \text{ mol}$$

$$\Rightarrow m_{\text{NH}_3 \text{ i}} = m_{\text{NH}_3 \text{ left}} + m_{\text{NH}_3 \text{ react}} = 2 \text{ mol}$$

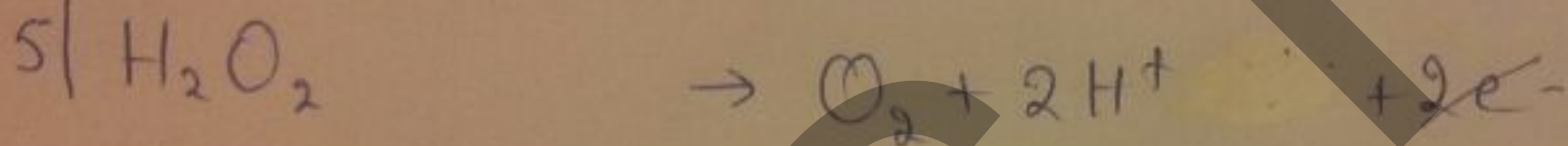
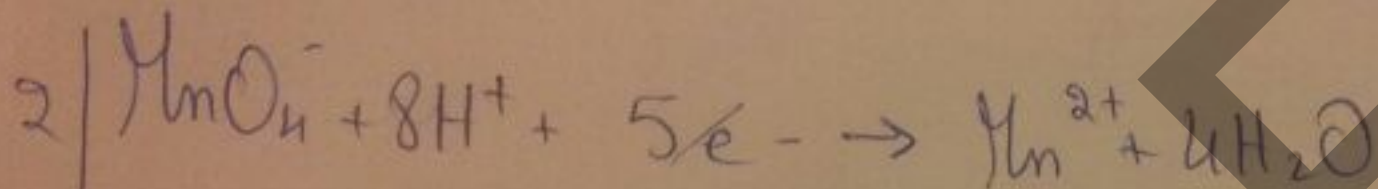
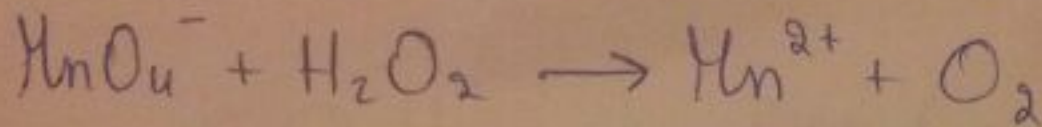
$$m_{\text{NH}_3 \text{ initial}} = 2 \times 17 = 34 \text{ g.}$$



$$m_{\text{AgCl}} = 3.5 \text{ g} \Rightarrow m = 0.024 = m_{\text{Ag}} = m_{\text{AgNO}_3}$$

$$\Rightarrow m_{\text{AgNO}_3} = 4.148 \Rightarrow \% m_{\text{AgNO}_3} = \frac{4.148}{6.54} \times 100 = 63.43\%$$

III -



$$2C V_{\text{MnO}_4^-} = 5C_{\text{H}_2\text{O}_2} V_{\text{H}_2\text{O}_2} \Rightarrow V_{\text{MnO}_4^-} = \frac{5 \times 0.15 \times 75 \times 10^{-3}}{2 \times 0.15}$$

$$V_{\text{MnO}_4^-} = 187.5 \text{ mL}$$